

REMARKS

Claims 1-4, 7-8, 11-13, 15-16, 18-19 and 22-24 were rejected under 35 U.S.C. § 102(e) as anticipated by Lechen (US 6,647,637). Claims 6 and 17 were rejected under 35 U.S.C. § 103(a) as obvious over Lechen. Claims 9-10 and 21-22 are indicated as allowable but for being dependent upon rejected base claims.

Claims 1 and 11 have been amended to clarify the novel features of the invention. The present invention uses non-articulated arms to contact the sidewall of the hole. With a first end of the arm rigidly attached to the housing, movement of the arm is such that its curvature changes depending on the radius of the hole. Lechen does not disclose these features of the invention. Lechen proposes an apparatus with fully articulated and telescoping linkages. The novel and nonobvious arm configuration of the invention provides increased reliability with less moving components.

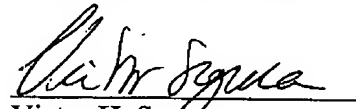
Applicant submits that Lechen does not anticipate current claim 23. Claim 23 recites a process entailing the measurement of a first magnitude of a magnetic field component using a first sensor disposed within the field; displacement of the magnetic field source; measurement of a second magnitude of the magnetic field component using a second sensor disposed within the field; and determining a distance that the magnetic field source is displaced using the first and second magnitude. Lechen does not disclose the use of a first and second sensor as set forth in claim 23.

Applicant submits that Lechen does not teach or suggest the features of claims 6 and 17 to render them obvious under 35 U.S.C. 103. Lechen lacks any discussion regarding the use of multiple magnetic sensors to measure the same magnetic field components. One skilled in the art would not glean this from Lechen.

Applicant submits that claims 1-4, 6-13 and 15-24 are in condition for allowance and passage to issuance is respectfully requested. If the Examiner believes that a telephone conference would be advantageous in advancing the issuance of the present application, a call to the undersigned at (281) 285-4562 is encouraged.

Schlumberger Technology Corporation
Sugar Land Product Center
Intellectual Property Law and Contracts
P.O. Box 2175
Houston, Texas 77252-2175
(281) 285-4562
Date 24-Mar-04

Respectfully submitted,



Victor H. Segura

Reg. No. 44,329

Attorney for Assignee